

A02/Z03

 INSPECTION CERTIFICATE acc to
 EN 10204 3.1

A06

 PG FLOWTEKNIK SCANDINAVIA APS
 RUGVAENGET 19 C
 2630 TAASTRUP
 DENMARK

INSPECTION STAMP

QA-TUBE

Customer References A07 Indkøbsordre#P010620	Alleima References A08 <table style="width:100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;">Order No.</td> <td style="border-bottom: 1px solid black;">Subs No.</td> <td style="border-bottom: 1px solid black;">Dispatch note</td> </tr> <tr> <td>591091</td> <td>172986</td> <td>196490</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Suppl. No</td> <td style="border-bottom: 1px solid black;">C.Code</td> <td></td> </tr> <tr> <td>172986</td> <td>15</td> <td></td> </tr> </table>	Order No.	Subs No.	Dispatch note	591091	172986	196490	Suppl. No	C.Code		172986	15																																																																																																							
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Material description B01/B04 SEAMLESS STAINLESS COLD FINISHED HYDRAULIC TUBING Metallurgical process C70 Electric furnace	Steel/material Designations B02 <table style="width:100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;">Alleima</td> <td style="border-bottom: 1px solid black;">AISI</td> </tr> <tr> <td>3R60</td> <td>TP316/TP316L</td> </tr> <tr> <td style="border-bottom: 1px solid black;">EN no</td> <td></td> </tr> <tr> <td>1.4435</td> <td></td> </tr> </table>	Alleima	AISI	3R60	TP316/TP316L	EN no		1.4435																																																																																																											
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Technical requirements B03 ASTM A-213-21B AW, ASME SA-213-ED-21 AW, ASTM A-269-15A NACE MR0175/ISO 15156-3:-2015, NACE MR0103/ISO 17945-1:-2015 PED 2014/68/EU EN 10216-5 TC1 HRB MAX 80																																																																																																																			
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Quality assurance - Sofia Åkesson / Q-Manager A05/Z02 MTC Service / Certificates																																																																																																																			



Chemical composition, product (weight%)

Heat	C	Si	Mn	P	S	Cr	Ni	Mo
044452	0.021	0.40	1.58	0.029	0.005	17.21	13.12	2.62
	N							
044452	0.030							

Tensile test at room temperature

Lot	Yield strength		Tensile strength	Elongation	
	MPa	MPa	MPa	%	%
	Rp0.2	Rp1.0	Rm	A	2"
96667	279	310	566	65	55
96668	270	302	560	68	60
96669	273	301	550	66	60

Hardness test

Lot	Min	Max
	HRB	HRB
96667	74	74
96668	73	73
96669	73	74

Following controls/tests have been satisfactorily performed:

- Flattening test.
- Flaring test
- 100% PMI-test.
- Intergranular corrosion test acc to ASTM A-262 PR.E and EN ISO 3651-2A
- Leak test: Eddy current test acc to EN ISO 10893-1, ASME SA-1016.
- Visual inspection and dimensional control.

Heat Treatment:

Solution annealed at a temperature of Min 1040° C and quenched.

Marking:

3R60 ASTM/ASME A/SA213 A269 COLD EN 10216-5 TC1 AW TP 316/TP 316L EN 1.4435 CF A SML NDE 10.00 X 1.50 MM . HT 566709 SZ LOT 2082801-11 MADE BY ALLEIMA IN CZE CHIA *QA-TUBE*

3R60 ASTM/ASME A/SA213 A269 COLD EN 10216-5 TC1 AW TP 316/TP 316L EN 1.4435 CF A SML NDE 10.00 X 1.50 MM . HT 566709 SZ LOT 2082802-11 MADE BY ALLEIMA IN CZE CHIA *QA-TUBE*

3R60 ASTM/ASME A/SA213 A269 COLD EN 10216-5 TC1 AW TP 316/TP 316L EN 1.4435 CF A SML NDE 10.00 X 1.50 MM . HT 566709 SZ LOT 2082804-11 MADE BY ALLEIMA IN CZE CHIA *QA-TUBE*

The raw material is free from radioactive contamination.

Material free from mercury contamination.

No welding or weld repair.

Approved acc. AD 2000-Merkblatt W0 and certified acc. to Pressure Equipment Directive (2014/68/EU, Annex 1 para 4.3) by TUEV NORD; notified body, reg.no. 0045.

The number of tests are based on the size of the manufacturing lot before cutting to finished lengths.



The delivered products comply with the specifications and requirements of the order.

The material is manufactured according to a Quality system, approved and registered to ISO 9001:2015.

No unauthorized alterations. The contents of this Inspection Certificate may not be modified or revised in any way without the prior written approval of Alleima.

Unauthorized alterations to the Inspection Certificate, including introduction of false, fictitious or fraudulent statements or entries, may be punishable by fines, imprisonment, or both. This Inspection Certificate may be copied only in the manner and for the purposes specified in Section 6 of EN 10204:2004. Contravention of this notice will be prosecuted to the fullest extent of applicable law.

The certificate is produced with EDP and valid without signature.

TEST RESULTS TRANSFERRED FROM CERTIFICATE NO C-8322/40
C-8322/40
C-8322/40

